

## Society Proceedings.

### NEW YORK NEUROLOGICAL SOCIETY.

*Stated Meeting, March 1st, 1887.*<sup>1</sup>

*The President, C. L. DANA, M.D., in the Chair.*

#### PRESENTATION OF THE CORD AND NERVES IN A CASE OF ALCOHOL PARALYSIS—MULTIPLE NEURITIS.

DR. H. M. BRIGGS presented the case.

*Autopsy.*—Patient greatly emaciated. Legs and thighs markedly flexed. Muscles of the legs of a yellow color, and apparently converted almost entirely into fat. Muscles of thigh much less affected. Spinal cord, nerve roots, and trunks normal in appearance.

*Microscopical Appearances.*—Spinal cord apparently normal, with the exception of slight sclerosis in the columns of Goll in cervical region. Nerve roots normal. In one of sacral nerves before its exit from spinal canal was found a marked increase in the endoneurium with diminution in the number of the nerve fibres, and an irregularity and indistinctness in these appearances. The right sciatic nerve showed the same changes more marked. In the posterior tibial the process was even more advanced, and in this only an occasional nerve fibre could be detected. Microscopically, the gastrocnemius was composed almost entirely of adipose tissue; only here and there atrophied muscle fibres were found. The small nerve trunks in the muscle showed advanced degenerative neuritis, with comparatively little new growth of connective tissue in the nerves.

THE PRESIDENT thought that in this case it had been fully demonstrated that the alcohol paralysis was due to a neuritis and not to a myelitis.

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<sup>1</sup> By an unfortunate error, the publication of these proceedings has been unduly delayed.—ED.

DR. M. A. STARR had seen the specimens, and said there was no question with regard to the existence of neuritis in this case, and the normal condition of the anterior cells of the spinal cord. There was slight sclerosis in the columns of Goll which he was unable to explain. The same condition has been observed in a case of Hamilton, recorded by Granger Stewart. He referred to a well-prepared specimen by Dr. Van Gieson, in a case of Dr. Ball's, not yet published; also to the manner of preparing specimens.

DR. BIGGS said that, contrary to the ordinary condition found, the process seemed to be more a degeneration of nerve fibre than an interstitial neuritis, especially in the smaller nerves.

DR. NOYES spoke of the frequent occurrence of amblyopia with alcoholism, and said it was due to a partial neuritis of the optic nerve, referred as had been shown to the centre field, and not to the field at large. He suggested that in cases like the one reported by Dr. Biggs, the neurologists should make careful examination of the optic nerves. In reply to Dr. Starr, whether scotoma was due as frequently to tobacco as to alcohol, he said it might be due to either; but the patients frequently combined the two habits.

THE PRESIDENT said the name alcohol paralysis was rather begging the question; this patient, it seemed, had been only a moderate drinker. The same fact had been noticed in other cases.

Abstract of DR. STEVENS' paper on

IRRITATION ARISING FROM THE VISUAL APPARATUS CONSIDERED AS ELEMENTS IN THE GENESIS OF NEUROSES.

Two classes of influences were recognized as causes of functional nervous disorders—the remote and the immediate. The remote causes may be sufficient to perpetuate a neurosis when once a nervous irritation has been instituted. While immediate causes rarely induce long-continued disorders, a pre-existing influence may serve to continue it indefinitely. It is of little practical importance that some exciting circumstance has given rise to a nervous trouble. The event has passed and cannot be recalled. If there is an underlying cause it is of much more importance.

Persons in whom underlying causes of neurosis exist are said to possess a neuropathic predisposition, and those subject to it are liable, from trifling immediate causes, to suffer from various neuroses. In a considerable proportion of cases, the neuropathic tendency is hereditary, but the result is not always manifested in the same form in different generations.

A third class of cases which should be recognized may be designated as *modifying tendencies*, among which may be mentioned vitiated atmosphere, the period of life, and the performance of certain physiological functions.

Often as a result of the predisposing influence, when one form of complaint is supposed to be cured, the subject of it is simply suffering from some other form.

Must the predisposing cause of neurosis be general, pervading the whole organism, or must it of necessity be located in the great nerve centres, or may it be entirely local and outside those great centres? Undoubtedly it may be local, and confined to any portion of the nervous system.

Inasmuch as the tendency is often hereditary, may not the evil consist of some peculiarity of anatomical structure or of physiological adaptations which are inconsistent with the most regular and easy performance of the function of a part or parts; and may not certain classes of mechanical peculiarities be unusually liable to become factors of physiological disturbance?

If we answer in the affirmative, we assume a hypothesis which must be maintained by long-continued observations, conducted in a spirit of judicial independence, and free from the bias which might result from occasional and exceptional experiences. The conclusions announced this evening are based upon observations in more than five thousand cases in private practice, and of a considerable number in public institutions; all of which have been made with as much precision as the exacting demands of an active professional life would permit. The central truth, as arrived at by these observations, may be stated, as it has already been done in a memoir to the Royal Academy of Medicine of Belgium, in 1883, as follows:

Difficulties attending the functions of accommodating and of adjusting the eyes in the act of vision, or irritations arising from the nerves involved in these processes, are among the most prolific sources of nervous disturbances, and more frequently than other conditions constitute a neuropathic tendency.

In the proposition, all causes of nervous irritation are recognized. It is held that the influences indicated are pre-eminent, but not exclusive permanent causes. Let it be remembered that it has been universally conceded that the nature of the neuropathic tendency is unknown. If one pre-eminently important

element is demonstrated it is not to be rejected because it may not include the whole.

The speaker proposed only to illustrate the result of his experience by exhibiting some photographs of cases of notable neuroses, which showed very remarkable changes of physiognomy, such as habitually occurred when certain hurtful tensions of the ocular muscles were relieved. If he had designed to present only the most remarkable cases of the class to which these belonged, he would have chosen only a few of these. The design was, however, only to show by these contrasting photographs the very notable improvement which in obstinate, and even by ordinary means, hopeless cases of the most important neuroses might be expected from relief of certain hurtful tensions of the eye muscles.

The portraits were in pairs, the first having been taken at the commencement of treatment; the second at a later period, the intervals being on an average about one month. The first series represented cases in his private practice; the second series cases which were under his care for a short time at the Willard Asylum for the Insane last summer. The first series had been made by various photographers, the second by Dr. P. M. Wise, superintendent of the Willard Asylum. Thirteen pairs of photographs were exhibited, nine of the first and four of the second series. In all these very striking contrasts existed between the first and second portraits.

In No. 1, a weary and listless young girl, a sufferer from headache, and who had never been able to attend school, is seen to be transformed in twelve days into a vivacious and thoroughly awake child, following relaxation of each of the inner eye muscles. The change in health was marvellous. In No. 2, an epileptic girl, whose vacant gaze and half-open mouth indicated a profound degree of dementia, within a single month put on an appearance of robust health and of lively intelligence. In another case a boy, choreic from infancy and imbecile, whose constant movements were too rapid even for the modern photographer, showed in the second photograph, from which the distortions of the face and wrinkles in the skin had disappeared, a clever mental state.

The speaker related in brief some of the results of a short season among the most hopeless cases of the Willard Asylum for the Insane. Two of these hopeless cases, who had, during the month preceding, treatment directed to the eye-muscles, been

subjected to about one hundred and seventy convulsions, suffered only about forty convulsions in the month succeeding that treatment, notwithstanding the withdrawal of all bromides.

Fifty per cent of epileptics so treated had remained well for a length of time varying from many years to only a single year, but sufficiently long to indicate that a great change had been wrought. Thirty-two per cent had received very marked relief, but short of absolute cessation of the complaint. They were all better without drugs than they had formerly been with. In seventeen per cent no good results had been obtained.

The speaker thought that, with a better understanding on his own part of the extremely complicated conditions of the ocular muscles often found in epilepsy, this record could be improved.

The method of procedure in examining for muscular defects was given. It differed radically from that proposed by Graefe and generally adopted, and from other methods which had been suggested. His method of performing tenotomy was also described.

In conclusion, Dr. Stevens said he thought it was not unreasonable to look for the future advance in medical practice along two great lines; the one related to micro-organisms, the other to irregular phenomena resulting from well-defined causes of irritation, which causes must be sought for principally in the direction of difficulties in the performance of necessary functions. With the removal of such difficulties, we might look with confident expectation to the cessation of the peculiar irregularity which constituted the special form of nervous disease.

DR. E. C. SEGUIN said, with regard to the ætiology of neuroses and serious mental disorders, that he thought we ought to look a great deal deeper than the exciting and superficial causes which occurred in many cases of that kind. In epilepsy and chorea, for instance, he thought we had to look for the efficient cause, not in disturbed external apparatus, but to hereditary predispositions and faulty tendencies. That faulty external apparatus would cause more attacks, or possibly aggravate the mental disorder, he thought no one would deny, consequently the optic apparatus, the genital apparatus, etc., should be put in perfect order. As to the great improvement after tenotomy in epilepsy, the records of surgery and medicine were filled with cases in which trauma of various kinds had interfered with epileptic manifestations for months or even years. It seemed to him the report of a case

within six months after tenotomy was rather premature. He referred to one of his cases of epilepsy recently submitted to division of the ocular muscles, the bromides at the same time being withdrawn, and three days later she commenced to have from six to twelve convulsions in the twenty-four hours—more than she had ever had before the operation. He had had patients go three years without an epileptic attack, and then have a relapse.

DR. H. D. NOYES thought the precise ocular conditions in the cases reported should have been recorded; perhaps they were in that part of the paper not read. He had with him exact records of a number of cases of ocular trouble with the result of treatment. It had not fallen within his experience to meet with the class of cases referred to by Dr. Stevens. He dwelt upon the importance of making a thorough ocular examination, including that of the muscles of the eye in every case. He had come to realize more and more the importance of insufficiency of the external recti. He had obtained benefit in many cases from prisms. He spoke of the method of examination and of performing tenotomy. The paper deserved the most careful consideration.

DR. D. B. ST. JOHN ROOSA said that that part of the paper which especially concerned the ophthalmologist was as old as ophthalmology itself, and it did not call for discussion to-night. The real point in the paper was, he thought, that the correction of errors of refraction, improper relation between the ciliary and internal recti muscles, and other deviations of the ocular muscles, was capable of curing constitutional disease. He took it that epilepsy was a constitutional disease and not merely a functional disturbance. The same was true of chorea. The question was, did these operations cure epilepsy and chorea? But it had been shown that people with chorea got well without ever having error of refraction corrected. It had also been shown that the vast majority of people who were not myopes were hypermetropics, yet suffered no inconvenience from it. In this, the author's second paper, another step had been taken, namely, that these constitutional diseases, epilepsy and chorea, were due, not solely to errors of refraction, but to want of co-ordination between the recti and ciliary muscles. Then the prism test came upon the field, and we had to exercise the ocular muscles by prisms. Then in the order of advance came the doctrines taught in the paper of to-night. Granting the claims of the paper, that the patients had for a time after correction of an ocular difficulty been greatly re-

lieved, possibly cured, yet that was a long way from assuming that the ocular disturbance, whatever it was, was the cause of the epilepsy. Many great men having strabismus had not become choreic, epileptic, nor insane.

DR. A. L. RANNEY thought that following the exhibition of the photographs little need be said in confirmation of the views advanced by Dr. Stevens. The photographs were so startling that they would be accepted in any court of justice by an unprejudiced jury as proof that unmistakable benefits had been derived from the treatment. He had personally seen and examined several of the cases, and he considered the published histories as decidedly underestimated. Dr. Ranney had performed the operation for the relief of ocular insufficiency nearly two hundred times, and had carefully examined the condition of refraction and accommodation as well as that of the ocular muscles in several hundred subjects afflicted with various forms of nervous disease. He did not pretend to pose as an oculist, but as a neurologist. Originally he was a skeptic, but his skepticism became no longer tenable when he saw a choreic and epileptic imbecile in Dr. Stevens' office who was perfectly restored in a short time to health and mental sanity by the method he had described. He thought the paper would tend to establish a new era in neurology. Regarding the operation, in no case had he had bad effects from it, but the treatment required careful regard to detail.

Respecting the view that the eye is an important factor in creating and prolonging the so-called "neuropathic predisposition," the following facts were pertinent: 1, No one has yet shown in what this predisposition lies; hence, if Dr. Stevens has shown that eye-defect is an important element in these conditions a great advance has been made. 2, There is no recognized pathology in functional nervous diseases. 3, Heredity is very common in these affections. 4, My records, in common with those of Dr. Stevens', go to show that eye-defect is found in a very large proportion of such subjects. 5, Many of the eye-defects found can be shown to be congenital, being inherited like feature. 6, The manifestations of the neuropathic predisposition vary with each case, and are called forth often by trivial circumstances which are too frequently regarded as of great clinical interest.

In the treatment of the severer forms of functional nervous disease, for example, in chronic epilepsy, one radical cure without the aid of drugs offsets a thousand failures as a proof of the scien-

tific value of a discovery. Dr. Stevens had seven cases free from epileptic seizures for more than five years after tenotomy of the eye-muscles, and without the aid of drugs. This could not be explained by chance. Then the records of the Willard Asylum were hard to contradict.

During the past year and a half he had seen sixteen epileptics in private practice; in only one was no defect in the eye-muscles found. He had an opportunity to operate on the eyes in eight of the cases; three of these were cured; two had no fits for over one year. In the five cases still under observation the attacks had been lessened in all, drugs having been withdrawn. One had been reported by Dr. Stevens. In headache and neuralgia, he had had some very remarkable results from tenotomy of the eye-muscles; also satisfactory results in hysteria and hysterio-epilepsy.

DR. HERMAN KNAPP said his practice had not brought him much in contact with people who had neurotic conditions, and most of those whom he had seen had passed into other hands. He was very much surprised to learn that there was so high a percentage of ocular difficulties in the patients Dr. Stevens examined in the asylum. He thought nervous people generally showed not one complaint only. Many people, especially young ladies who suffer from headache, etc., cease to complain after correction of a deviation of the eye-muscles, etc. He had listened with the greatest attention to Dr. Stevens, and he felt quite sure that his work was not only legitimate, but that it was highly promising. He was only afraid we would not be spared disappointment in that line of treatment.

DR. GRUENING said his experience had been very much like that of Dr. Knapp. He always examined for muscular defect, and said that when one placed a prism before the eye it disturbed binocular vision. For the correction of this apparent muscular defect an operation was performed, but the muscle was sewed to its original place, or the lateral attachment was not divided, and this was only the simulation of an operation. He had benefitted many patients by cylinders.

DR. STEVENS, in closing the discussion, said there was no suggestion in the paper regarding cures. He did not believe in cures. Take away the cause of the trouble and they got well. If the patients could not be said to be cured, it was still a very fortunate thing that they had got rid of their chorea, epilepsy, etc.